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Port Ambrose Deepwater Port

Quick Reference

Item	Description of Proposed Facilities	Metric Units (if applicable)
COMPANY AND OWNERSHIP		
Applicant	Liberty Natural Gas, LLC	NA
Applicant Address	J. Roger Whelan (President and CEO); Jason Goldstein (Chief Operating Officer) 51 John F. Kennedy Pky, Suite 309 Short Hills, NJ 07078	NA
PROPOSED OFFSHORE FACILITY		
Proposed Deepwater Port Location		
Proposed Deepwater Port Location	Atlantic Ocean, 16.1 nautical miles off of Jones Beach, New York	29.8 kilometers
Proposed Outer Continental Shelf (OCS) Lease Block	NK 18-12 6708, NK 18-12 6709, and NK 18-12 6758	NA
Proposed Facility Coordinates	Buoy 1: 40° 19' 24.6" N, 73° 25' 45.3" W Buoy 2: 40° 20' 09.3" N, 73° 23' 51.9" W	NA
Water Depth at Facility Location	103 feet	31 meters
Throughput		
Annual Average Throughput Capacity (gas volume)	400 MMscf/d	11.3 million meters^3/day
Design Peak Flow Throughput Capacity (gas volume) For Single Buoy	650 MMscf/d	18.4 million meters^3/day
Design Peak Throughput Capacity (gas volume) For Both Buoys	660 MMscf/d	18.7 million meters^3/day
Schedule and Service Life (If License Is Granted)		
Proposed Deepwater Port Service Life	25 years	NA
Construction Duration (Approximately)	9 months	NA
Proposed Installation Date	2017	NA
Proposed Start of Commercial Operations	Last Quarter 2017	NA

Item	Description of Proposed Facilities	Metric Units (if applicable)
LNGRV Specifications		
LNGRV Cargo Tank Capacity	5.1 million feet^3	145,000 meters^3
Maximum LNG Sendout Rate	750 MMscf/d	21.2 million meters^3/day
Average LNG Sendout Rate	400 MMscf/d	11.3 million meters^3/day
LNGRV Loaded Draft	40.7 feet	12.4 meters
LNGRV Overall Length	918.6 feet	280 meters
Vaporization Units	3	NA
Vaporization Maximum Re-Gas Pressure	1740 Psi	120 bar
Port-Specific Marine Traffic		
Average Number of LNGRV Visits per Year	45	NA
Maximum Number of LNGRV Visits per Year	45	NA
Average Number of Support Vessel Round Trips per Year	97	NA
Nearest Shipping Fairway	3.0 nautical miles east of the Hudson Canyon to Ambrose Inbound Traffic Lane; 2.2 nautical miles west southwest of the Ambrose to Nantucket Outbound Traffic Lane	5.6 kilometers; 4.1 kilometers
STL™ Buoy		
Number of STL Buoys	2	NA
Water Depth at location	100 – 110 feet	30.5 – 33.5 meters
Number of Mooring Lines per STL Buoy	8	NA
Mooring Cable Diameter	4.25 inches	10.8 centimeters
Operating Pressures	960 psig	66.2 bar
Design Pressure	1,960 psig	135.1 bar
Normal Temperature	35° F	2° C
Flexible Risers (Deliver Natural Gas from STL Buoy to PLEM / Terminal Pipelines)		
Number of Risers per STL Buoy	1	NA
Riser Diameter	14 inches	35.6 centimeters
Designed Gas Flow	650 MMscf/d	18.4 million m^3/day
Pipeline Laterals with Associated Pipeline End Manifolds (PLEM)		
Number of Pipeline Laterals	2	NA
Pipeline Diameter	26 inches	66.04 centimeters
Pipeline Length	Lateral 1: 0.76 nautical miles Lateral 2: 1.54 nautical miles	Lateral 1: 1.4 kilometers Lateral 2: 2.9 kilometers
Fixed Seafloor Depth	100 – 110 feet	30.5 – 33.5 meters

Item	Description of Proposed Facilities	Metric Units (if applicable)
Mainline		
Length	18.8 nautical miles	34.8 kilometers
Diameter	26 inches	66.04 centimeters
Interconnect Pipeline (Interconnecting Port Ambrose with the Transco Pipeline System)		
Number of Interconnect Pipelines	1	NA
Transco Lower New York Bay Pipeline Lateral Diameter	26 inches	66.04 centimeters
Capacity of the Transco Pipeline	614 MMscf/d	17.4 million m^3/day
Port Ambrose Air Emissions and Sources		
Marine Boilers	2	NA
Dual-Fuel Generator Engines	2	NA
Gas Combustion Unit (GCU)	1	NA
Port Ambrose Operation Emissions – Nitrogen Oxide (NO_X)	42.7 tpy	NA
Port Ambrose Operation Emissions – Carbon Monoxide (CO)	80.0 tpy	NA
Port Ambrose Operation Emissions – Volatile Organic Compounds (VOC)	23.9 tpy	NA
Port Ambrose Operation Emissions – Particulate Matter (PM_{10} and $PM_{2.5}$, each)	18.6 tpy	NA
Port Ambrose Operation Emissions – Sulfur Dioxide (SO_2)	1.1 tpy	NA
Port Ambrose Operation Emissions – Greenhouse Gases (as CO_2e)	199,578 tpy	NA
Safety		
Safety Zone Around STL Buoys (radius)	1,640 feet	500 meters
Combined Safety Zones (acres)	388 acres	157 hectares
Applicant proposed No Anchoring Area (NAA) (radius)	3,281 feet	1,000 meters
Applicant proposed No Anchoring Area (NAA) (acres)	1,552 acres (776 around each buoy)	628 hectares (314 around each buoy)
Applicant proposed Area To Be Avoided (ATBA) (radius)	3,281 feet	1,000 meters
Applicant proposed Area To Be Avoided (ATBA) (acres)	1,552 acres (776 around each buoy)	628 hectares (314 around each buoy)
Number and Capacity of Lifeboats	1 @ 50 persons 4 @ 25 persons each 1 @ 6 persons	NA
Proposed Onshore Fabrication Sites		
Fabrication Site Locations	TBD	Quonset Point, North Kingstown, RI Port of Coeymans, Coeymans, NY

Common Conversion Equations

Unit	Conversion
Temperature	
° C	(° F - 32) / 1.8
° F	(° C x 1.8) + 32
Length / Distance	
1 inch	2.540 centimeter
1 inch	25.40 millimeter
1 foot	0.3048 meter
1 meter	3.2808 feet
1 meter	39.37 inch
1 mile	1.6093 kilometer
1 kilometer	0.6214 mile
1 mile	0.869 nautical mile
1 nautical mile	1.15 mile
Area	
1 ha	2.471 ac
1 ac	0.4047 ha
1 foot^2	0.0929 meter^2
1 inch^2	6.452 centimeter^2
1 mile^2	2.604 kilometer^2
1 meter^2	10.764 feet^2
Volumes, Weights, and Rates	
1 foot^3	7.4805 gallon
1 foot^3	0.02832 meter^3
1 foot^3	28.32 liter
1 gallon	0.134 feet^3
1 gallon	0.003785 meter^3
1 meter^3	264.172 gallon
1 meter^3	35.31 feet^3
1 meter^3	1000 liter
1 gallon	3.785 liter
1 liter	0.2642 gallon
1 gallon	0.0238 bbl
1 meter^3	6.29 bbl
1 MG	23,000 bbl

Common Conversion Equations

Unit	Conversion
1,000 bbl	72.8 tonnes
1,000 bbl	5.614 $feet^3$
1,000 bbl	159 $meters^3$
1 pound	0.453592 kilogram
1 kilogram	2.205 pound
1 kilogram	1,000 gram
1 ton	2,000 pound
1 ton	0.9072 tonnes
1 tonne	2,204.6 pounds
1 tonne	1.10231 tons
1 $foot^3$/second	0.28316 $meters^3$/second
1 $foot^3$/second	448.8 gallons/minute
1 $foot^3$/minute	7.4805 gallons/minute
1 million gallons per day	0.0438 $meter^3$/second
1 liter/minute	0.26417 gallons/minute
1 gallons per minute	4.54609 liters/minute
1 $meter^3$/hour	35.31 $feet^2$/hour
1 Bscfd	0.028316 Bscmd
1 Bscmd	35.31 Bscfd
metric tons/hour	1.1023 tons/hour
tons/hour	0.9072 metric tons/hour
1 tpy	907.18474 kilograms/year
1 foot/second	0.3048 meter/second
1 meter/second	3.2808 feet/second
1 meter/second	17.604 inch/second
1 milligram/liter	1 parts ppm (in water)
Volumes, Weights, and Rates	
1 Btu	2.9308 x 10-4 kW • hr
1 Btu	7.7816 x 102 ft-lbs
1 Btu	1005.056 J
1 Btu/SCF	37.33 kJ/Nm^3

Common Conversion Equations

Unit	Conversion
Power/Electricity	
1 kW	1.341 hp
1 hp	0.7457 kW
Pressure	
1 psi	0.0703 kgscm
1 kgscm	14.22 psi
1 psi	psig + atmospheric pressure
bar/100 meters	bar per 100 meters
Specific LNG, Gas, and Energy Conversions	
1 metric ton	14 bbl (LNG)
1 metric ton	2.23 meters^3 (LNG)
1 metric ton	78.6 feet^3 (LNG)
1 metric ton	52.11 MMBtu (energy)
1 bbl	0.071 metric tons (LNG)
1 bbl	0.16 meter^3 (LNG)
1 bbl	5.61 feet^3 (LNG)
1 meter^3	0.449 metric tons
1 meter^3	6.29 bbl (LNG)
1 meter^3	35.31 feet^3 (LNG)
1 meter^3	23.41 MMBtu (energy)
1 foot^3	0.013 tonnes (LNG)
1 foot^3	0.178 bbl (LNG)
1 foot^3	0.028 meter^3 (LNG)

LIST OF ACRONYMS AND ABBREVIATIONS

°C	degrees Celsius
°F	degrees Fahrenheit
µg/L	micrograms per liter
µPa	microPascal
AAQS	Ambient Air Quality Standards
AAV	ambient air vaporizers
ACHP	Advisory Council on Historic Preservation
ADCP	acoustic doppler current profiler
ADIOS	Automated Data Inquiry for Oil Spills
AIS	Automatic Identification System
Algonquin	Algonquin Gas Transmission LLC
APE	area of potential effect
Applicant or Liberty	Liberty Natural Gas, LLC
AQCR	air quality control region
ATBA	Area to be Avoided
BA	Biological Assessment
AWOIS	Automated Wreck and Obstruction Information System
BACT	best available control technology
BCC	birds of conservation concern
BGEPA	Bald and Golden Eagle Protection Act
BO	Biological Opinion
BOEM	Bureau of Ocean Energy Management
BOG	boil-off gas
BP	before present
Btu	British thermal units
$Btu/hr/ft^2$	British thermal units per hour per square foot
CAA	Clean Air Act
CEQ	Council on Environmental Quality
CFC	chlorofluorocarbons
CFD	Computational Fluid Dynamics
CFR	Code of Federal Regulations
CH_4	methane
CO	carbon monoxide
CO_2	carbon dioxide
CO_2e	carbon dioxide equivalent emissions
COMDTINST	USCG Commandant Instruction
CPD	coastal plain deposits
CRESLI	Coastal Research and Education Society of Long Island, Inc.
$_cSEL$	cumulative sound exposure level
CWA	Clean Water Act
CWC	concrete weight coating
CYA	collocated “Y” assembly
CZM	Coastal Zone Management
CZMA	Coastal Zone Management Act
dB	decibel
dBA	A-weighted decibel
dBL	linear decibel
dB_{peak}	peak sound pressure in dB

LIST OF ACRONYMS AND ABBREVIATIONS

DHS	Department of Homeland Security
DMMP	Dredged Material Management Plan
DO	dissolved oxygen
DOE	U.S. Department of Energy
DOT	U.S. Department of Transportation
DP	dynamic positioning
DPPV	dynamic positioning pipelay vessel
DPS	Distinct Population Segment
DSV	Dive Support Vessel
DWPA	Deepwater Port Act of 1974
DWPSP	Deepwater Port Security Plan
EBD	emergency buoy disconnect
EEZ	Exclusive Economic Zone
EFH	essential fish habitat
EIA	Energy Information Administration
EIS	Environmental Impact Statement
ELI	Eastern Long Island
EO	Executive Order
ESA	Endangered Species Act
ESD	emergency shutdown
ESDV	ESD valves
FAA	Federal Aviation Administration
FDMS	Federal Docket Management System
FERC	Federal Energy Regulatory Commission
FHWG	Fisheries Habitat Working Group
FLACS	Flame Acceleration Simulator
FLAG	Federal Land Manager's Air Quality Related Values Work Group
FMP	Fishery Management Plan
FRU	floating regasification unit
FSA	Facility/Vessel Security Assessment
FSO	Facility/Vessel Security Officer
FSP	Facility/Vessel Security Plan
FSRU	floating storage and regasification unit
ft^2	square feet
ft^3	cubic feet
ft/sec	feet per second
FTA	Federal Transit Administration
g/hp-hr	grams per brake horsepower-hour
GBS	gravity-based structure
GCU	gas combustion unit
GD	glacial drift
GDP	gross domestic product
GFD	glaciofluvial deposits
GHG	greenhouse gas
GNRA	Gateway National Recreation Area
gpm	gallons per minute
GWP	global warming potential
H_2SO_4	sulfuric acid

LIST OF ACRONYMS AND ABBREVIATIONS

HAP	hazardous air pollutant
HARS	Historic Area Remediation Site
HAZID	hazard identification
HF	high frequency
hp	horsepower
HVDC	high voltage direct current
Hz	hertz
ICF	ICF International
IHA	Incidental Harassment Authorization
IGC	International Gas Code
IMO	International Maritime Organization
IPCC	Intergovernmental Panel on Climate Change
IRA	independent risk assessment
Iroquois	Iroquois Gas Transmission System
ISPS	International Ship and Port Security
kHz	kilohertz
km	kilometer
km/hr	kilometers per hour
kW	kilowatt
kW/m^2	kilowatts per square meter
L_{dn}	day-night sound level
L_{eq}	equivalent sound level
LF	low frequency
LFL	lower flammability limit
Liberty or Applicant	Liberty Natural Gas, LLC
LIPA	Long Island Power Authority
LNG	liquefied natural gas
LNGRV	LNG regasification vessel
LNM	Local Notices to Mariners
LOA	letter of authorization
LPG	liquefied petroleum gas
m^2	square meter
m^3	cubic meter
MARAD	Maritime Administration
MARMAP	Marine Resources Monitoring, Assessment, and Prediction
MARPOL	International Convention for the Prevention of Pollution from Ships
MARUs	marine autonomous recording units
MBTA	Migratory Bird Treaty Act
mg/L	milligrams per liter
mgd	million gallons per day
MMBtu/hr	million British thermal units per hour
MMPA	Marine Mammal Protection Act
MMS	Minerals Management Service
MMscf/d	million standard cubic feet per day
MP	milepost
MPA	marine protected areas
MPRSA	Marine Protection, Research, and Sanctuaries Act
MSA	Magnuson-Stevens Fishery Conservation and Management Act

LIST OF ACRONYMS AND ABBREVIATIONS

MSIB	Marine Safety Information Broadcast
MTS	Marine Transportation System
MTSA	Maritime Transportation Security Act of 2002
MYA	million years ago
MW	megawatt
N_2O	nitrous oxide
NAA	No Anchoring Area
NAAQS	National Ambient Air Quality Standards
NDBC	NOAA National Data Buoy Center
NEPA	National Environmental Policy Act
ng/L	nanograms per liter
NH_3	ammonia
NHPA	National Historic Preservation Act
NJDEP	New Jersey Department of Environmental Protection
NJHPO	New Jersey Historic Preservation Office
NMFS	National Marine Fisheries Service
NNSR	non-attainment new source review
NO_2	nitrogen dioxide
NOAA	National Oceanic and Atmospheric Administration
NOAA Fisheries	National Oceanic and Atmospheric Administration, National Marine Fisheries Service
NOEP	National Ocean Economics Program
NOI	Notice of Intent
NOTR	Northeast Ozone Transport Region
NO_x	nitrogen oxides
NPDES	National Pollutant Discharge Elimination System
NRHP	National Register of Historic Places
NSA	noise-sensitive areas
NSR	New Source Review
NYISO	New York Independent System Operator
NYPA	New York Power Authority
NYSDEC	New York State Department of Environmental Conservation
NYSEP	New York State Energy Plan
NYSHPO	New York State Historic Preservation Office
O_3	ozone
OCD	Offshore and Coastal Dispersion
OCS	Outer Continental Shelf
OPAREA	U.S. Navy Operating Area
OPRHP	Office of Parks, Recreation and Historic Preservation
ORV	open rack vaporizers
OSI	Ocean Surveys, Inc.
PANYNJ	Port Authority of New York and New Jersey
Pb	lead
PCB	polychlorinated biphenyls
pg/L	picograms per liter
PHMSA	Pipeline and Hazardous Materials Safety Administration
PLEM	pipeline end manifold
PM	particulate matter

LIST OF ACRONYMS AND ABBREVIATIONS

PM_{10}	particulate matter with an aerodynamic diameter less than or equal to 10 microns
$PM_{2.5}$	particulate matter with an aerodynamic diameter less than or equal to 2.5 microns
Port Ambrose Project, Port or Project	Port Ambrose Deepwater Port
ppm	parts per million
ppmw	parts per million by weight
ppt	parts per thousand
PSD	Prevention of Significant Deterioration
psig	pounds per square inch gauge
PSO	protected species observers
psu	practical salinity units
PTS	permanent threshold shift
RISHPO	Rhode Island State Historic Preservation Office
RMS	recent marine sediments
RMS	root mean square
ROD	Record of Decision
ROI	Region of Influence
RoRo	roll-on/roll-off
ROV	remotely operated vehicle
RPT	rapid phase transition
Sandia	Sandia National Laboratories
SCR	selective catalytic reduction
SCV	submerged combustion vaporizers
scuba	self-contained underwater breathing apparatus
Secretary	Maritime Administrator's actions and responsibilities as the delegated representative of the Secretary of Transportation
SEQRA	New York State Environmental Quality Review Act
SHPO	State Historic Preservation Office
SIL	significant impact level
SIP	state implementation plan
SMA	seasonal management area
SO_2	sulfur dioxide
SOLAS	Safety of Life at Sea
SOP	standard operating procedure
SO_x	sulfur oxide
SPI	sediment profile image
SPL	sound pressure level
SSTI	subsea tie-in
STL Buoy	submerged turret loading buoy
STV	shell and tube vaporizers
tcf	trillion cubic feet
TETCO	Texas Eastern Transmission Company
TEU	20-foot equivalent units
THPS	tetrakis (hydroxymethyl) phosphonium sulfate
tpy	tons per year
TIP	tribal implementation plan
Transco	Transcontinental Gas Pipe Line Company
TSP	total suspended particulates

LIST OF ACRONYMS AND ABBREVIATIONS

TSS	total suspended solids
TSS	Traffic Separation Scheme
TTS	temporary threshold shift
U.S.C.	United States Code
UFL	upper flammability limit
USACE	U.S. Army Corps of Engineers
USCG	U.S. Coast Guard
USDOI	U.S. Department of the Interior
USEPA	U.S. Environmental Protection Agency
USFWS	U.S. Fish and Wildlife Service
USGS	United States Geologic Survey
VIA	Visual Impact Assessment
VOC	volatile organic compounds
VTS	Vessel Traffic Services

1.0 Introduction

On September 28, 2012, Liberty Natural Gas, LLC (hereinafter referred to as Liberty or the Applicant), an indirect wholly owned subsidiary of West Face Long-Term Opportunities Global Master L.P. (West Face Global Master Fund), which is managed by West Face Capital Inc., submitted an application to the U.S. Coast Guard (USCG) and Maritime Administration (MARAD) seeking a federal license under the Deepwater Port Act of 1974 (DWPA),[1] as amended,[2] to own, construct, and operate a deepwater port for the import and regasification of liquefied natural gas (LNG)[3] in federal waters of the New York Bight. LNG would be delivered from purpose-built LNG regasification vessels (LNGRVs), vaporized on the LNGRV and delivered through subsea manifolds and lateral pipelines to a buried Mainline connecting to the existing Transcontinental Gas Pipe Line Company (Transco) Lower New York Bay Lateral[4] in New York state waters. The Port Ambrose Deepwater Port (Port Ambrose Project, Port or Project) was assigned Docket No. USCG-2013-0363.

Together, the USCG and MARAD are the lead federal agencies responsible for licensing of the deepwater port. In accordance with Section 1504(f) of the DWPA, this draft Environmental Impact Statement (EIS) has been prepared in cooperation with additional federal agencies and departments to comply with the requirements of the National Environmental Policy Act (NEPA) of 1969, and such compliance shall fulfill the NEPA responsibilities of such agencies and departments related to the licensing and review of the proposed Project and the requirements of NEPA, the DWPA, USCG Commandant Instruction (COMDTINST) M16475.1D, and the Department of Homeland Security Management Directive 23-01, Environmental Planning Program. The U.S. Department of the Interior (USDOI) Bureau of Ocean Energy Management (BOEM), U.S. Fish and Wildlife Service (USFWS), National Oceanic and Atmospheric Administration Fisheries Service (NOAA Fisheries; also known as National Marine Fisheries Service [NMFS]), U.S Army Corp of Engineers (USACE), U.S. Environmental Protection Agency (USEPA), and the U.S. Department of Transportation Pipeline and Hazardous Materials Safety Administration (PHMSA) are cooperating agencies for the purpose of this draft EIS. They may incorporate this draft EIS in their permitting processes.

The DWPA establishes a licensing system for ownership, construction, and operation of deepwater ports in waters beyond the territorial limits of the United States. Originally, the DWPA promoted the construction and operation of deepwater ports as a safe and effective means of importing oil into the United States and transporting oil from the Outer Continental Shelf (OCS), while minimizing tanker traffic and associated risks close to shore. The Maritime Transportation Security Act of 2002 (MTSA) amended the definition of "deepwater port" to include facilities for the importation of natural gas.[5]

[1] Public Law (P.L. 93-627, Sec. 3, January 3, 1975, 88 Stat. 2127, as amended, codified to 33 U.S. Code (U.S.C.) 1501-1524.

[2] On December 20, 2012, the Coast Guard and Maritime Transportation Act of 2012 (Title III, Sec. 312) amended Section 3(9)(A) of the Deepwater Port Act of 1974 (33 U.S.C. 1502(9)(A) to insert the words "or from" before the words "any State" in the definition of Deepwater Port. This amendment grants MARAD the authority to license the construction of Deepwater Ports for the export of oil and natural gas from domestic sources within the United States to foreign markets abroad.

[3] LNG is natural gas that has been cooled to about minus 260 degrees Fahrenheit (°F) for efficient shipment and storage as liquid. It is more compact than its gaseous equivalent, with a volumetric differential of about 610 to 1.

[4] The Transco Lower New York Bay Lateral is an existing 26-inch interstate natural gas pipeline that is part of the 10,500-mile Transco pipeline system which extends from South Texas to New York City. The Lower New York Bay Lateral begins onshore in Middlesex County, New Jersey, continues offshore across Monmouth County, New Jersey and Queens County, New York, and terminates on Long Island, Nassau County, New York.

[5] P.L. 107-295, Section 106, November 25, 2002, 116 Stat. 2064.

Under the DWPA, all deepwater ports must be licensed by the Secretary of Transportation (Secretary). The Secretary has delegated authority to the USCG and MARAD to process applications submitted by private parties to construct, own and operate deepwater ports. The USCG retains this responsibility under the Department of Homeland Security.[6] On June 18, 2003, the Secretary delegated authority to MARAD to issue, transfer, amend, or reinstate a license for the construction and operation of a deepwater port.[7] The responsibility for preparing the Project Record of Decision (ROD) and for issuing or denying the Deepwater Port License has also been delegated to MARAD. Hereafter, "the Secretary" refers to the Maritime Administrator as the delegated representative of the Secretary. On April 30, 2013, MARAD issued a *Notice of Policy Clarification Concerning the Designation of Adjacent Coastal States for Deepwater Port License Applications* advising the public that nautical miles shall be used when determining Adjacent Coastal State status.[8] Pursuant to the criteria provided in the Act, New York and New Jersey are the Adjacent Coastal States for the proposed Project. Other states may apply for Adjacent Coastal State status in accordance with 33 United States Code (U.S.C.) 1508(a)(1). [9]

On June 14, 2013, the MARAD issued a Notice of Application in the *Federal Register*, summarizing the Applicant's deepwater port application.[10] Under procedures set forth in the DWPA, the USCG and MARAD have 240 days from the date of the Notice of Application to hold one or more public license hearings in the adjacent coastal state(s).

On October 21, 2013, the USCG and MARAD issued a letter to suspend the statutory timeline required by the DWPA for 90 calendar days, commencing on October 21, 2013 and ending on January 18, 2014. This timeline suspension was issued to account for data gap and public comment responses, as well as to account for the Federal Government shutdown that occurred during October 2013. During the shutdown, most of MARAD and the USCG deepwater port teams were in a furlough status. On March 7, 2014, this suspension was continued retroactively to January 19, 2014, and indefinitely. This period of suspension was not counted in determining the date prescribed by the time limits set forth in 33 U.S.C. 1504(g) and 1504(i)(4) of the DWPA.

The Applicant also filed permit applications required under the Clean Air Act (CAA) and Clean Water Act (CWA) with the USEPA. If a DWPA license is issued, the Applicant will apply to the USDOI, BOEM for port facilities and a pipeline right-of-way.

Liberty proposes to locate the proposed Project in Bureau of Ocean Energy Management (BOEM) OCS blocks 6708, 6709, and 6758, approximately 16.1 nautical miles off of Jones Beach, New York and 27.1 nautical miles from the entrance of New York Harbor, 13.1 nautical miles east of Sandy Hook, New Jersey, and approximately 24.9 nautical miles from Long Branch, New Jersey. The 18.8-nautical-mile Mainline is proposed to connect to the existing Transco Lower New York Bay Lateral in New York state waters, approximately 2.2 nautical miles south of Long Beach, New York and 13.1 nautical miles east of Sandy Hook, New Jersey. The proposed Port facilities contained in the USCG and MARAD license application would consist of:

[6] Title XV (Transition) of the Homeland Security Act provides that "pending matters," including license applications currently being processed, will continue regardless of the transfer of USCG from the USDOT. Even though the function of processing applications has been transferred with USCG to the U.S. Department of Homeland Security, the Secretary of Transportation retains ultimate authority to issue, transfer, amend, or reinstate licenses under the Deepwater Port Act.

[7] Vol. 68, *Federal Register*, No. 117, Wednesday, June 18, 2003, pp 36496-97.

[8] Vol. 78, *Federal Register*, No. 83, Tuesday, April 30, 2013, pp 25349-51.

[9] 33 U.S.C. 1508(a)(1) designates as an "adjacent coastal state" any coastal state, which would be located within 15 miles of any proposed deepwater port. On April 30, 2013, MARAD issued clarification in Vol 78 *Federal Register*, No. 83, pp 25349-51, that nautical miles shall be applied when designating an adjacent coastal state under 33 U.S.C. 1508(a)(1).

[10] Vol. 78, *Federal Register*, No. 115, Friday, June 14, 2013, pp 36014-16.

- Two subsea submerged turret loading buoys (STL™ Buoys)
- Two flexible risers
- Two pipeline end manifolds (PLEMs)

The proposed offshore pipeline facilities contained in the USCG and MARAD license application would consist of:

- Two 26-inch-diameter pipeline laterals
- One 18.8 nautical mile, 26-inch-diameter Mainline

Detailed descriptions of the Proposed Action (port and pipeline facilities) are provided in Section 2.1.

Each STL Buoy would connect to a PLEM using the flexible riser assembly, and the PLEM would connect to the pipeline laterals. Purpose-built LNGRVs, each capable of transporting approximately 145,000 cubic meters of LNG, would connect to a STL Buoy to deliver natural gas to the proposed Mainline. Once securely moored and when system safety checks are complete, the LNGRV would vaporize the LNG using a two-step "closed-loop" system. The closed-loop system would use a recirculated water-glycol mixture as an intermediate heating medium, heated by steam generated by the vessel's two auxiliary boilers, which would be fired by boil-off gas (BOG) from the vessel's LNG tanks, consuming approximately 2.5 percent of each LNGRV's LNG cargo in the process.

The proposed 26-inch-diameter Mainline would connect the proposed Port facilities to the Transco Lower New York Bay Lateral pipeline system approximately 2.2 nautical miles south of Long Beach, New York and 13.1 nautical miles east of Sandy Hook, New Jersey. The proposed Mainline route would run from milepost (MP) 0.0 approximately 16.8 nautical miles in a northwest direction through BOEM OCS lease blocks 6708, 6658, 6657, 6607, 6606, 6556, 6555, 6654, 6504, and 6503 where it would cross into New York state waters. From MP 19.3, the pipeline would continue in a northwest direction for approximately 2.1 nautical miles to the intersection with the Transco Lower New York Bay Lateral at MP 21.67. Figure 1.1-1 shows the general location of the proposed Project. Section 2.1 provides a more detailed description of the proposed Mainline and ancillary facilities. The Region of Influence (ROI) for impacts on resources described in this draft EIS includes the area within and directly adjacent to the proposed Port location and proposed Mainline route that could be affected by construction, operation, and decommissioning of the proposed Port Ambrose Project.

1.1 Purpose and Need

The purpose for licensing LNG deepwater ports is to provide a reliable and timely supply of natural gas and increase energy diversity, while considering impacts on the environment, safety, and security. Accomplishing the project purpose and need requires construction of appropriate facilities for receiving the LNG, revaporizing the LNG to a gaseous state, and interconnecting the facility to the existing transmission pipeline system, which would distribute the natural gas into the downstate New York City and Long Island markets to meet existing and future demand requirements, particularly during periods of peak winter and summer demand.[11]

[11] The Northeast and New York City gas markets are highly seasonal with dual peaks, a very large peak in the winter due to heating demand and a smaller peak in the summer for electric power generation. ICF predicts increases in winter and summer peak period demand for the New York City region (ICF 2012).

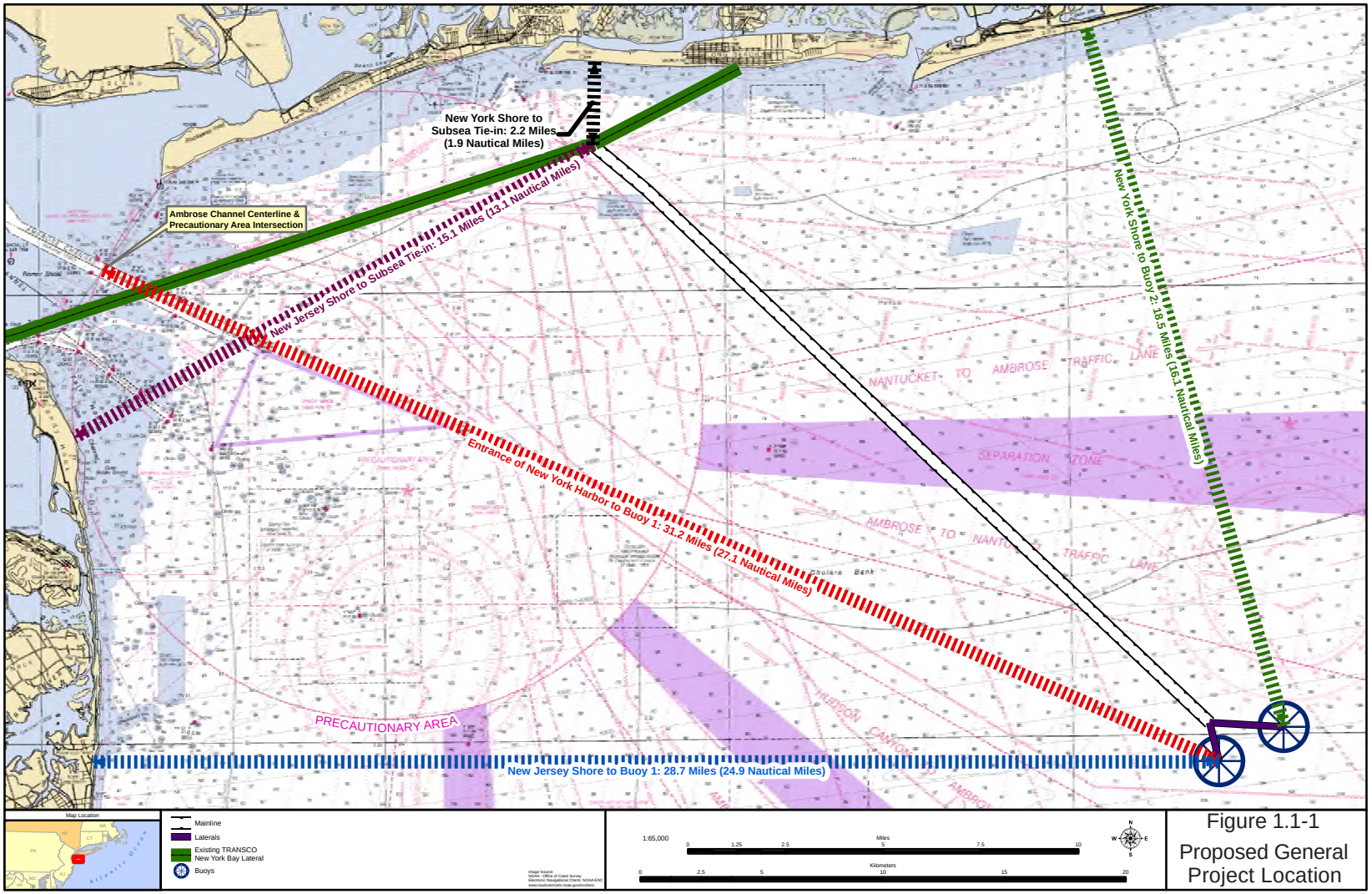

Figure 1.1-1. Proposed Port Ambrose General Project Location

The DWPA of 1974, as amended, was passed to promote and regulate the construction and operation of deepwater ports as a safe and effective means of importing oil or natural gas into the United States. The DWPA requires the Secretary to approve or deny a deepwater port license application. In reaching this decision, the Secretary must carry out the Congressional intent expressed in the DWPA, which is to:

- "authorize and regulate the location, ownership, construction and operation of deepwater ports in waters beyond the territorial limits of the United States;
- provide for the protection of the marine and coastal environment to prevent or minimize any adverse impact that might occur as a consequence of the development of such ports;
- protect the interests of the United States and those of adjacent coastal States in the location, construction, and operation of deepwater ports;
- protect the rights and responsibilities of the States and communities to regulate growth, determine land use, and otherwise protect the environment in accordance with law;
- promote the construction and operation of deepwater ports as a safe and effective means of importing oil and natural gas into the United States and transporting oil and natural gas from the outer continental shelf while minimizing tanker traffic and the risks attendant thereto; and
- promote oil and natural gas production on the outer continental shelf by affording an economic and safe means of transportation of outer continental shelf oil and natural gas to the United States mainland."

The Congressional intent is codified in nine requirements set forth in 33 U.S.C. 1503(c), as follows:

- The Applicant is financially responsible and will meet the requirements of the DWPA.
- The Applicant can and will comply with applicable laws, regulations, and license conditions.
- Construction and operation of the deepwater port will be in the national interest and consistent with national security and other national policy goals and objectives, including energy sufficiency and environmental quality.
- The deepwater port will not unreasonably interfere with international navigation or other reasonable uses of the high seas, as defined by treaty, convention, or customary international law.
- The Applicant has demonstrated that the deepwater port will be constructed and operated using best available technology, so as to prevent or minimize adverse impact on the marine environment.
- The Secretary has not been informed, within 45 days of the last public hearing on a proposed license for a designated application area, by the Administrator of the Environmental Protection Agency that the deepwater port will not conform with all applicable provisions of the Clean Air Act, as amended (42 U.S.C. 7401 et seq.); the Federal Water Pollution Control Act, as amended (33 U.S.C. 1251 et seq.); or the Marine Protection, Research and Sanctuaries Act, as amended (16 U.S.C. 1431 et seq., 1447 et seq.; 33 U.S.C. 1401 et seq., 2801 et seq.).
- The Secretary has consulted with the Secretaries of the Army, State and Defense to determine their views on the adequacy of the application, and its effect to programs within their respective jurisdictions.
- The Governor of the adjacent coastal state approves, or is presumed to approve, issuance of the license.
- The adjacent coastal state to which the deepwater port is to be directly connected by pipeline has developed, or is making at the time the application is submitted, reasonable progress, toward developing an approved coastal zone management program pursuant to the Coastal Zone Management Act (CZMA) of 1972 (16 U.S.C. 1451 et seq.).

The DWPA application currently under consideration is one proposed by Liberty. In its application, Liberty proposes to construct, own, and operate the proposed Project to receive and vaporize LNG and

transport natural gas at a geographical location that allows it to connect into the downstate New York and Long Island market via the existing natural gas transmission infrastructure.

Increasing U.S. Demand for Natural Gas

Energy demand in the United States, and in particular, the Northeast, has been growing and continues to increase steadily. Part of the intent for the recent DWPA amendments was to provide mechanisms to ensure that the U.S. energy market could access worldwide natural gas supplies that the federal government recognized would become a key supply source for the country's existing and projected natural gas demands over the next 10 years. The U.S. Department of Energy (DOE), Energy Information Administration (EIA) estimates that total energy consumption in the United States will increase by 0.3 percent per year, to 107.6 quadrillion British thermal units (Btu) from 2011 to 2040 (EIA 2013a). The EIA projects that annual demand for natural gas in the United States could grow by about 0.6 percent per year, and could reach 30.1 quadrillion Btu by 2040, due largely to projected electricity generation (EIA 2013a). Recent trends (Table 1.1-1) suggest that natural gas demand in the lower 48 states has exceeded supply in four out of the past nine years to date. Natural gas use in the industrial sector increased by 16 percent, from 6.8 trillion cubic feet (tcf) per year in 2011 to 7.8 tcf per year in 2025 (EIA 2013a). In addition, the natural gas share of electricity generation is expected to grow to approximately 39 percent, potentially reaching 14.8 tcf by 2040 (EIA 2013a).

Natural Gas Outlook for New York

The state of New York depends on natural gas primarily for residential and small commercial space heating and is highly weather sensitive. New York's natural gas market is winter peaking with over 70 percent of residential and 60 percent of commercial natural gas consumption occurring between November and March. In 2010, New York was ranked eighth in the United States by the EIA in total energy consumption (EIA 2013b). In 2011, natural gas consumption elevated to approximately 1,247 trillion Btu, ranking New York fifth nationally (EIA 2013b). According to the Draft New York State Energy Plan (NYSEP 2014), projections indicate that for New York, adequate pipeline delivery capacity is critical to ensure that available gas supplies can be provided to the markets that require them, particularly the downstate New York and Long Island market.

From 2001 through 2010, natural gas consumption has fluctuated, mainly due to conversion to economic fuel switching by oil/gas steam plants and peak demand during weather-related circumstances (NYSEP 2014). While this fluctuation is evident, natural gas supply and demand has shown an increasing trend between 2005 through 2014 (EIA 2013b) (see Table 1.1-1). Natural gas continues to be the fuel of choice for new and replacement generation due to economic, operational, and environmental advantages. Natural gas-fired generation, in general, tends to have lower capital costs, are cleaner burning, are more energy-efficient, and have a greater degree of operational flexibility (NYSEP 2014). By 2035, New York annual gas demand is expected to grow by about 185 billion cubic feet to about 1.48 tcf. According to NYSEP (2014), 80 percent of the growth in demand is concentrated around New York City and Long Island, which are both capacity constrained. Currently, New York's gas supply is from production regions in other states, principally Gulf Coast states and Canada. Gas is shipped to New York through existing interstate pipelines from producing and storage areas. The capacity of interstate pipelines to transport sufficient commodity to meet New York's increasing demand for natural gas is a concern, particularly for the downstate region. New delivery points at New York City market locations would relieve existing capacity constraints and increase the reliability of the gas system. In addition, these would also reduce both the volatility of downstate market gas prices and the delivered price of natural gas. New supplies increase gas market reliability and minimize price volatility by providing other sources of supply that are available when other supplies, such as those from the Gulf of Mexico, are disrupted as a result of hurricanes or other factors. For example, the NYSEP notes that in the wake of Hurricanes Katrina and Rita in 2005, gas prices in New York were sharply higher due to the disruption of gas supplies to the region (NYSEP 2014). Additional pipeline capacity into the downstate region would provide a direct benefit to not only the natural gas ratepayers but also to electric ratepayers.

Table 1.1-1. Annual U.S. Natural Gas Supply and Demand in the Lower 48 Continental States (Trillion Cubic Feet)

Demand	Year									
	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014
Residential	13.22	11.97	12.94	13.37	13.09	13.1	12.91	11.42	13.22	12.82
Commercial a/	8.22	7.76	8.25	8.61	8.54	8.5	8.64	7.94	8.79	8.61
Industrial b/	18.09	17.88	18.23	18.22	16.9	18.7	18.92	19.5	20	20.48
Electric Power	16.08	17.05	18.74	18.22	18.83	20.24	20.75	24.96	22.1	21.58
Plant Fuel	3.05	3.13	3.36	3.33	3.49	3.52	3.62	3.81	3.85	3.88
Pipeline and Distribution	1.6	1.6	1.7	1.77	1.84	1.85	1.87	1.95	1.95	1.96
Vehicle Use	0.06	0.07	0.07	0.07	0.07	0.08	0.09	0.09	0.09	0.09
Total Demand	**60.31**	**59.45**	**63.3**	**63.6**	**62.77**	**65.99**	**66.81**	**69.68**	**70**	**69.42**
Total Supply c/	**59.66**	**59.16**	**63.85**	**63.59**	**63.05**	**65.68**	**67.3**	**70.01**	**70.5**	**70.14**

Source: Energy Information Administration/Short-Term Energy and Winter Fuels Outlook, October 2013.

a/ Commercial consumption is gas used by nonmanufacturing establishments or agencies primarily engaged in the sale of goods or services such as hotels, restaurants, wholesale and retail stores, and other service enterprises; and gas used by local, state and federal agencies engaged in nonmanufacturing activities.
b/ Industrial consumption includes natural gas used for heat, power, or chemical feedstock by manufacturing establishments; those engaged in mining or other mineral extraction; and consumers in agriculture, forestry, fisheries, and construction.
c/ Total Supply includes total U.S. dry gas production, imports, exports, supplemental gaseous fuels, and working gas in storage.

The NYSEP (2014) determined that New York should take specific steps to encourage investment in natural gas infrastructure, including LNG facilities that are sited, constructed, and operated as to be fully consistent with applicable state and federal environmental and safety laws and regulations. The NYSEP (2014) plan concluded that LNG import projects could serve New York State and that such projects could provide a new gas supply source that could have the effect of diminishing price volatility. A large volume of imported LNG entering the Northeast market close to load centers would also likely increase the competiveness of the market and could lower prices. At the local level, New York City's long-term growth plan (April 2011 update of PlaNYC), includes initiatives to increase natural gas transmission and distribution capacity in order to improve reliability and encourage conversion from highly polluting fuels (NYCDEP 2011). In addition, the PlaNYC introduces Energy Initiative 13, which encourages the development of clean distributed generation. These initiatives were codified in New York City regulations that require all new heating systems to burn only No. 2 oil, natural gas, or the equivalent in terms of emissions beginning May 2011, with a conversion of all No. 4 or No. 6 oil systems by 2030 (NYCDEP 2011). Without additional natural gas capacity, New York City utilities "will be unable to respond to growing demand for new service as customers pursue clean distributed generation and conversions from dirty heating oil" (NYCDEP 2011). Current projects that have been constructed, or are scheduled for construction, to increase New York City's natural gas capacity included the Spectra Pipeline, completed in November 2013, and the Williams Pipeline (Transco Rockaway Lateral), which is expected to start construction in 2014 (PlaNYC 2013).

Given the established need for new supply, the Applicant commissioned a study (the ICF Report) by ICF International (ICF 2012), the firm hired by the state of New York to assist in the preparation of the NYSEP. The ICF Report concluded that there will be substantial growth in natural gas demand throughout North America and that increased supplies are required to meet growing demand in the Northeast United States, particularly in New York City, which accounts for approximately 20 percent of the total gas demand in the Northeast. Approximately 80 percent of the anticipated growth will occur in the power generation sector. Gas-fired generation will be increasingly relied on during the next 25 years as demand continues to grow. Gas-fired generation will increasingly replace coal-fired generation, as new regulations limiting carbon emissions are introduced (ICF 2012). In addition, supplemental information provided by ICF (2014) indicated that supply has led to spikes in gas prices, particularly during time such as the 2013/2014 Polar Vortex event. Price volatility during the weather event caused higher than normal gas prices in the Northeast (ICF 2014). The proposed Project would increase New York's natural gas transport options, particularly in the downstate market, by improving efficiency, volume, and flexibility of the existing natural gas delivery system. Importation of LNG also allows the delivery of a diversified source of natural gas supply from conventional gas fields (historically, mainly from the Caribbean country of Trinidad and Tobago for U.S. imports) directly into the downstate New York market with no additional onshore infrastructure development required.

1.2 Scope and Organization of this Draft EIS

In processing DWPA applications, the Secretary (through USCG and MARAD) is responsible for complying with numerous federal and state regulations, including NEPA. As such, the purpose of this draft EIS is to provide an environmental analysis sufficient to support the Secretary's licensing decision; to facilitate a determination of whether Liberty has demonstrated that the proposed Project would be located, constructed, operated, and, eventually upon retirement, decommissioned, using the best available technology necessary to prevent or minimize adverse impacts on the environment; and to encourage and facilitate involvement by the public and interested agencies in the environmental review process.

The affected environmental resource areas evaluated in this draft EIS include water quality, biological resources, threatened and endangered marine mammals, sea turtles, fish and birds, geological resources, cultural resources, ocean uses, land uses, visual resources, socioeconomics, transportation, air quality, noise, and public safety. This draft EIS describes the proposed action and potential alternatives (Section 2.0), the affected environment as it currently exists (Section 3.0), the probable environmental

consequences that may result from construction, operation, and decommissioning of the proposed Project (Section 4.0), public safety (Section 5.0), and cumulative and other impacts (Section 6.0).

Where applicable, this draft EIS considers safety but does not function as the final safety evaluation. All aspects of port safety would be addressed in the Port Operations Manual, which would require USCG approval prior to initiation of deepwater port operations. Financial responsibility is being evaluated within MARAD as a separate task that would be considered along with this draft EIS as part of the final licensing decision.

In developing this draft EIS, the USCG adhered to the procedural requirements of NEPA, the Council on Environmental Quality (CEQ) regulations for implementing NEPA (40 Code of Federal Regulations [CFR] 1500-1508), Department of Homeland Security Management Directive 23-01, Environmental Planning Program, USCG procedures for implementing NEPA (COMDTINST M16475.1D, *National Environmental Policy Act Implement Procedures and Policy for Considering Environmental Impacts*), and the USCG's final rule for deepwater ports for LNG.[12]

1.3 Public Review and Comment

Agency and public participation in the NEPA process promotes open communication between the public and the government and enhances decision-making. All persons and organizations having a potential interest in the Secretary's decision whether to grant the license are encouraged to participate in the decision-making process.

The USCG and MARAD initiated the public scoping process on June 24, 2013, with the publication of a Notice of Intent (NOI) to prepare an EIS in the *Federal Register*. The NOI included information on public meetings and informational open houses; requested public comments on the scope of the EIS; and provided information on how the public could submit comments by mail, hand delivery, facsimile, or electronic means.[13] The closing date of July 14, 2013 for receipt of materials in response to the request for comments was extended until July 23, 2013.[14] This closing date was subsequently extended until August 22, 2013.[15] The NOI also announced the establishment of a public docket, accessible through the Federal Docket Management System (FDMS) website: http://www.regulations.gov under docket number USCG-2013-0363.

An Interested Party Letter, the NOI published in the *Federal Register*, and a fact sheet describing the proposed Project were sent to federal, state, and local agency representatives; and other potentially interested parties (Appendix B). Public comments submitted as part of the scoping process (Appendix C) were considered during the development of this draft EIS.

As an additional mechanism to facilitate public participation in the scoping process, the USCG and MARAD held an informational open house at the Allegria Hotel, 80 West Broadway, Long Beach, New York, on July 9, 2013, and at the New Jersey Convention and Exposition Center, 97 Sunfield Avenue, Edison, New Jersey, on July 10, 2013. The open houses were attended by 380 recorded individuals[16] (New York 192, New Jersey 188). Transcripts of the meetings are included in Appendix C. At the Long Beach, New York meeting, 52 individuals provided oral comments while 40 individuals provided oral comments at the Edison, New Jersey meeting. Some of the attendees also provided oral or written comments either in support of or in opposition to the proposed Project. Several of these speakers represented local, regional, and/or national organizations. A total of seven submissions from state and federal agencies, four submissions from local agencies, 78 submissions from companies and organizations, and 895 submissions from individuals were received on the FDMS Docket. Several of the

[12] The final rule was issued August 19, 2010 and went into effect September 20, 2010 per 33 CFR 150 and 165.
[13] Vol. 78, *Federal Register*, No. 121, Monday, June 24, 2013, pp 37878-80.
[14] Vol. 78, *Federal Register*, No. 131, Tuesday, July 9, 2013, p. 41190.
[15] Vol. 78, *Federal Register*, No. 136, Tuesday, July 16, 2013, p. 42588.
[16] Estimates indicate that attendance was closer to 250 individuals per meeting, accounting for those who did not sign in at the registration table.

submissions received from companies and organizations were compilations of hundreds of form letters signed by different individuals. Approximately 10,000 form letters were received through this mechanism as well as one petition with a reported signature count of 16,000 individual stakeholders. The written comments on the FDMS Docket generally mirror those received at the public meetings, but also included additional concerns. Transcripts of the meetings are included in Appendix C.

1.4 Permits, Approvals, and Regulatory Requirements

As the lead agencies for administration of the DWPA, license application processing and issuance, and NEPA compliance, the USCG and MARAD are responsible for compliance with the provisions of numerous state and federal environmental laws that require consultation with other agencies concerning specific environmental resources. Examples of these include Section 7 of the Endangered Species Act (ESA), the Magnuson-Stevens Fishery Conservation and Management Act (MSA), Section 106 of the National Historic Preservation Act (NHPA), and Section 307 of the CZMA. Described below are the various legal requirements and consultation obligations; where applicable, Sections 3.0, 4.0, and 6.0 also discuss those requirements. Any enforceable conditions imposed as part of an approved license must be consistent with the appropriate and applicable regulations.

The Applicant would be required to obtain approvals related to, and comply with all applicable and appropriate permits, guidelines, and approvals as provided for in the CZMA, the CWA, and the CAA for any impacts on coastal resources, wastewater discharges, or regulated air emissions to the environment, respectively. The Applicant must also provide the licensing agency with the information necessary to evaluate potential compliance with the applicable regulations and guidelines.

Table 1.4-1 lists major federal and state permits, approvals and consultation requirements required to construct and operate a natural gas deepwater port.

Table 1.4-1. Major Permits, Approvals, and Consultations for Natural Gas Deepwater Ports

Agency	Permit/Approval/Consultation
U.S. Department of Homeland Security, USCG	License application processing Post-licensing design, construction, operations approval, and oversight
U.S. Department of Transportation (DOT), MARAD	License application processing and approval
U.S. DOT, Pipeline and Hazardous Material Safety	Establish and enforce deepwater port pipeline safety regulations Consultation on LNG facility design
U.S. Department of the Interior, Bureau of Offshore Energy Management (BOEM)	Advise USCG and MARAD concerning the potential impacts of DWPA terminals on OCS lease blocks Pipeline right-of-way application and coordination Hazard surveys guidance and coordination Archaeological coordination
U.S. Department of the Interior, U.S. Fish and Wildlife Service (USFWS)	Section 7 ESA coordination Migratory Bird Treaty Act coordination Coastal Barrier Resources Act coordination
U.S. Department of the Interior, Bureau of Indian Affairs (BIA)	Tribal consultations and notifications
U.S. Environmental Protection Agency (EPA)	CWA National Pollutant Discharge Elimination System (NPDES) permit Title V CAA permit CAA Preconstruction permit CAA General Conformity Determination CWA Section 404 permit and mitigation consultation

Agency	Permit/Approval/Consultation
U.S. Department of Commerce, National Oceanic and Atmospheric Administration, National Marine Fisheries Service (NOAA Fisheries)	Section 7 ESA coordination Essential Fish Habitat (EFH) coordination under MSA Marine Mammal Protection Act coordination National Marine Sanctuaries Act (NMSA) Section 304(d) consultation
U.S. Army Corps of Engineers (USACE)	Section 404 CWA permit Rivers and Harbors Act Section 10 permit
U.S. Department of Defense	Consultation (review of license application adequacy and views on effects to departmental programs)
U.S. Department of State, Bureau of Oceans and International Environmental and Scientific Affairs	Consultation (review of license application adequacy and views on effects to departmental programs)
New York Historic Preservation Office (State Historic Preservation Office [SHPO])	Section 106 NHPA coordination
Office of the Governor, New York	Consent to issue license
New York State Coastal Management Program	CZMA Consistency Certification
New York State Department of Environmental Conservation (NYSDEC)	Consultation (protected species) Water quality certification State Environmental Quality Review Act (SEQR)
New Jersey Department of Environmental Protection (NJDEP) Natural and Historic Resources Historic Preservation Office (SHPO)	Section 106 NHPA coordination
Office of the Governor, New Jersey	Consent to issue license
NJDEP Coastal Management Program	CZMA Consistency Certification

Provisions of the Endangered Species Act (ESA)

Section 7 of the ESA states that any project authorized, funded, or conducted by any federal agency should not "… jeopardize the continued existence of any endangered species or threatened species or result in the destruction or adverse modification of habitat of such species which is determined … to be critical." The USCG and MARAD, or an applicant if designated as a non-federal representative, are required to "informally" consult with the USFWS and NOAA Fisheries to determine whether any federally listed or proposed endangered or threatened species or their designated critical habitats occur near the proposed Port facilities. If it is determined that these species or habitats might be affected by the proposed Project, the USCG and MARAD must begin "informal" consultation with the USFWS or NOAA Fisheries and prepare a Biological Assessment (BA) to identify the nature and extent of effects and recommend measures that would avoid or reduce potential effects to the species. The BA would be used for determining whether the effects would likely jeopardize any listed species or result in the destruction or adverse modification of designated critical habitat. After review of the BA, either NOAA Fisheries or the USFWS, or both, would issue a Biological Opinion (BO) on the potential for jeopardy. NOAA Fisheries and/or the USFWS may also issue an incidental take statement as an exception to the takings prohibitions in Section 7 of the ESA. The threatened and endangered species sections of this draft EIS (Sections 3.3 and 4.3), as well as Section 2.0, serve as the BA. Agency consultations under Section 7 of the ESA were initiated on August 8, 2013. Correspondence with the USFWS and NOAA Fisheries, with respect to the ESA, is presented in Appendix D, Agency Consultations and Correspondence.

Provisions of Magnuson-Stevens Fishery Conservation and Management Act (MSA)

The MSA, amended by the Sustainable Fisheries Act of 1996, establishes procedures designed to identify, conserve, and enhance essential fish habitat (EFH) for those species regulated under a federal Fishery

Management Plan (FMP). The MSA requires federal agencies to consult with NOAA Fisheries on all actions or proposed actions authorized, funded, or undertaken by the agency that might adversely affect EFH. NOAA Fisheries recommends consolidated EFH consultations with interagency coordination procedures required by other statutes such as NEPA or the ESA (50 CFR 600.920(e)(1)) to reduce duplication and improve efficiency. The mandatory content of an EFH Assessment is detailed in 50 CFR 600.920(e)(3). Sections 3.4 and 4.4 of this draft EIS describe EFH and potential project-related impacts. Appendix E presents a detailed assessment of EFH in the ROI.

Provisions of the Marine Mammal Protection Act (MMPA)

The MMPA prohibits the "take" of marine mammals, with certain exceptions, in waters under U.S. jurisdiction and by U.S. citizens on the high seas. Under Section 3 of the MMPA, "take" is defined as "harass, capture, hunt, kill, or attempt to harass, capture, hunt, or kill any marine mammal." "Harassment" is defined as "any act of pursuit, torment, or annoyance that has the potential to injure marine mammal stock in the wild; or has the potential to disturb marine mammal stock in the wild by disrupting behavioral patterns, including migration, breathing, nursing, breeding, feeding, or sheltering." In cases where U.S. citizens are engaged in activities, other than fishing, that result in "unavoidable" incidental take of marine mammals, the Secretary of Commerce can issue a "small take authorization." The authorization can be issued after notice and opportunity for public comment if the Secretary of Commerce finds negligible impacts. The MMPA requires consultation with NOAA Fisheries if impacts on marine mammals are unavoidable. The Applicant could be required to obtain a small take authorization, as deemed necessary by NOAA Fisheries.

Provision of the National Historic Preservation Act (NHPA)

Section 106 of the NHPA requires the USCG and MARAD to consider the effects of its undertakings on properties listed on or eligible for listing on the National Register of Historic Places (NRHP), including prehistoric or historic sites, districts, buildings, structures, objects, or properties of traditional religious or cultural importance, and to allow the Advisory Council on Historic Preservation (ACHP) to comment on the undertaking. Consultation with the State Historic Preservation Office (SHPO) would take place in the event of a potential adverse impact on historic properties as a result of the proposed Project. The USCG and MARAD have sent out initial consultation letters to both the New York and New Jersey SHPOs. The cultural resources sections of this draft EIS discuss the Section 106 review. In letters dated August 30, 2013, the USCG initiated consultation with the New York State Historic Preservation Office (NYSHPO) and the New Jersey Historic Preservation Office (NJHPO). NYSHPO responded by letter dated December 13, 2013, that it had no information regarding any potential significant historic properties within the area of potential effect (APE) of the proposed Project within New York State waters and that there is limited potential for such resources to occur. Further, in response to a letter dated May 12, 2014, concerning the potential for impacts to historic properties from additional burial of the proposed Mainline within the Ambrose anchorage area, the NYSHPO stated in a letter dated May 19, 2014, that the proposed Project would have no effect on historic properties within the APE. NJHPO responded in a letter dated September 24, 2013, by noting that studies related to historic architecture, archaeology, and underwater archaeology may be necessary to assess proposed Project effects under Section 106. In addition, the USCG requested tribal consultation information from the Bureau of Indian Affairs on August 19, 2013.

Marine Protection, Research, and Sanctuaries Act (The Marine Sanctuary Act)

Under Section 101 of the Marine Protection, Research, and Sanctuaries Act (MPRSA), 33 U.S.C. Part 1401, no person may transport material from the United States for the purpose of dumping it in ocean waters in the absence of a permit issued by USEPA pursuant to Section 102 of the Act. "Dumping" does not include "construction of any fixed structure or artificial island nor the intentional placement of any device in ocean waters, or on or in the submerged land beneath such waters, for a purpose other than disposal, when such construction or such placement is otherwise regulated by federal or state law…"

Coastal Zone Management Act (CZMA)

The CZMA calls for the "effective management, beneficial use, protection, and development" of the nation's coastal zone and promotes active state involvement in achieving those goals. To reach those goals, the CZMA requires participating states to develop management programs that demonstrate how these states would meet their obligations and responsibilities in managing their coastal areas. The agencies responsible for administering the CZMA in the designated adjacent coastal states are the New York State Coastal Management Program and the New Jersey Department of Environmental Protection (NJDEP) Coastal Management Program. The Applicant must prepare two consistency certifications, finding that its proposed activities would be fully consistent with the enforceable policies of both states' coastal zone management programs and submit it to both states for review.

Clean Water Act (CWA)

The federal CWA, as amended in 1977, establishes the basic structure for regulating discharges of pollutants into the waters of the United States. The objective of the CWA is to restore and maintain the chemical, physical, and biological integrity of the nation's waters (33 U.S.C. 12151) and gives the USEPA the authority to implement pollution control programs such as setting wastewater standards for industry. The CWA also sets water quality standard requirements for all contaminants in surface waters and makes it unlawful for any person to discharge any pollutant from a point source into navigable waters, unless a permit is obtained under its provisions. Three sections of the CWA are applicable to the proposed Project:

- Section 401, which requires federal agencies to obtain certification from the state, territory, or Indian tribes before issuing permits that would result in increased pollutant loads to a waterbody. Section 401 certification is issued only if such increased loads would not cause or contribute to exceedances of water quality standards. Section 401 water quality criteria are developed by state agencies for receiving waters based on their beneficial uses;
- Section 402, which requires that developers obtain a National Pollutant Discharge Elimination System (NPDES) Permit for point source discharges into a surface waterbody; and
- Section 404, which regulates the placement of dredge or fill materials into waters of the United States.

For the proposed Project, surface water quality standards for state waters are administered by the New York State Department of Environmental Conservation (NYSDEC). The proposed Project would require an application to the NYSDEC for a Joint Section 10/Section 404 Permit for activities involving the discharge of dredge or fill material in state and federal waters, and for a Water Quality Certificate for activities involving the discharge of hydrostatic test waters in federal waters. New York would issue the Section 401 Water Quality Certification in conjunction with the issuance of these permits and approvals.

The primary mechanism in the CWA regulating the discharge of pollutants is the NPDES, which is administered by the USEPA. Under the NPDES program, a permit is required from USEPA or an authorized state for the discharge of any pollutant from a point source into the waters of the United States (Section 402; 33 U.S.C. 1342). A NPDES permit for certain stormwater discharges is also required. In the case of discharges to the territorial sea or beyond, permits are also subject to the ocean discharge criteria developed under Section 403 of the CWA (33 U.S.C. 1343). Permits for discharges into the territorial sea or internal waters may be issued by states following approval of their permit program by USEPA; in the absence of an approved state permit program, and for discharges beyond the territorial sea, USEPA is the permit-issuing authority.

The Section 404 permit program is administered by the USACE, but is subject to review by the USEPA and other resource agencies such as the USFWS, NOAA Fisheries and applicable state agencies. The USEPA regulates and permits discharges to New York and OCS waters through the NPDES program under the CWA.

Clean Air Act (CAA)

The United States Congress passed the Clean Air Act in 1963, the Clean Air Act Amendment in 1966, the Clean Air Act Extension in 1970, and Clean Air Act Amendments in 1977 and 1990. The CAA requires USEPA to set limits on how much of a pollutant can be in the ambient air anywhere in the United States. These limits are known as the National Ambient Air Quality Standards (NAAQS). The law allows individual states to have ambient air quality standards stronger than the NAAQS, but states are not allowed to have weaker standards than the NAAQS. The main or "criteria" air pollutants with NAAQS established by the CAA are ozone, sulfur dioxide (SO_2), particulate matter (PM), lead, nitrogen oxides (NO_x), and carbon monoxide (CO). The CAA includes specific limits, timelines, and procedures to reduce these criteria pollutants. The CAA also regulates what are called "hazardous air pollutants" (HAPs). SO_2 and NO_x, which contribute to acid rain, are regulated by the CAA under a comprehensive permit program for electric generating facilities. The act protects stratospheric ozone by restricting the use of chlorofluorocarbons (CFCs) and limits ambient ozone by regulating the emissions of volatile organic compounds (VOCs) and NO_x.

Under the CAA, states have to develop state implementation plans (SIPs) that explain how each state will meet the NAAQS established under the CAA. A SIP is a collection of the regulations a state will use to clean up areas that are not meeting the NAAQS and maintain those areas in compliance with the NAAQS. USEPA must approve each SIP, and if a SIP is not acceptable, USEPA can take over enforcement of the CAA in that state.

New Source Review/Prevention of Significant Deterioration (NSR/PSD)

One of the key programs designed to achieve compliance with the NAAQS is the New Source Review (NSR) program, a preconstruction review process for new and modified stationary sources. The NSR program has two component parts: the Prevention of Significant Deterioration (PSD) program for attainment or "clean" areas, which requires new or modified sources to install state-of-the-art pollution controls to ensure that the ambient air quality will not degrade. The non-attainment area NSR program is designed to ensure that any new industrial growth in an area not meeting the NAAQS will comply with stringent emission limitations (by requiring the most protective pollution controls and emission offsets), with the goal of improving air quality overall to meet the NAAQS. The NSR program requires companies to obtain a permit for new construction or major modifications that substantially increase a facility's emissions of a criteria pollutant.

Title V Permits

State environmental agencies issue air permits to large stationary sources of pollution, including all sources subject to NSR permitting. The permitting process provides an operating permit for sources after they have completed construction or modification to document all emission limits, monitoring, recordkeeping and reporting requirements for ongoing operation of the new or modified facility. The information contained in this permit and all required records are available to the permitted facility, other agencies, and the public. These permits are known as ‘Title V’ permits because they are required by Title V of the 1990 CAA. The Title V permit is meant to contain all the requirements for the permitted source and includes semi-annual and annual certification of compliance with the permit, all of which is public information.

General Conformity

Section 176(c)(1) of the CAA established requirements to ensure that federal actions or actions approved by federal agencies do not adversely affect a state’s ability to achieve and maintain attainment with the NAAQS for projects located in an area not in attainment with the NAAQS for one or more criteria pollutants. The proposed Project is located in an area designated as non-attainment for ozone and therefore would be subject to the General Conformity requirements if emissions of NO_x and/or VOCs exceed the applicable thresholds. If a project triggers General Conformity requirements, the reviewing

federal agency must determine that the subject project would meet all SIP control requirements and determine that it would not cause a violation or interfere with attainment of the NAAQS.

Migratory Bird Treaty Act (MBTA)

The federal MBTA of 1918 (16 U.S.C. 703-712; Ch. 128; July 13, 1918; 40 Stat. 755) was enacted as a prohibition on the killing of migratory birds. Migratory bird species listed under this act occur throughout the general Project vicinity, and indeed are ubiquitous worldwide. While the act does not explicitly contain specific compliance measures to address potential impacts on migratory birds, developers are encouraged to evaluate existing avian resources within a proposed ROI and take reasonable measures to prevent avian impacts.

Bald and Golden Eagle Protection Act (BGEPA)

The BGEPA makes it unlawful to take, possess, sell, purchase, barter, offer to sell, purchase or barter, transport, export or import, at any time or any manner, any bald or golden eagle, alive or dead, or any part, nest, or egg thereof without a permit. The proposed Project is not expected to have any effect to bald or golden eagles because of the distance from shore, and because onshore Project components would be designed to avoid impacts.

New York State Environmental Quality Review Act (SEQRA)

The New York SEQRA (6 NYCRR Part 617 SEQR [Environmental Conservation Law Sections 3-0301(1)(b), 3-0301(s)(m) and 8-0113]) requires the sponsoring or approving governmental body to identify and mitigate the significant environmental impacts of the activity it is proposing or permitting. The basic purpose of the SEQRA is to incorporate the consideration of environmental factors into the existing planning, review and decision-making processes of state, regional and local government agencies at the earliest possible time. To accomplish this goal, the SEQRA requires that all agencies determine whether the actions they directly undertake, fund or approve may have a significant impact on the environment, and, if it is determined that the action may have a significant adverse impact, prepare or request an EIS. This statewide regulatory framework requires that a suitable balance of social, economic and environmental factors be incorporated into the planning and decision-making processes of state, regional and local agencies. It is not the intention of the SEQRA that environmental factors be the sole consideration in decision-making.